



Marijuana Facts

The Rest of the Story

Iowa Office of Drug Control Policy
February 2015

An Important Distinction

The Iowa Office of Drug Control Policy (ODCP) supports the development of safe, tested and effective research-based medicines, including qualified cannabis *derivatives*, for use by health care professionals to treat patients with valid medical needs, and that do not compromise the health and public safety of Iowans.

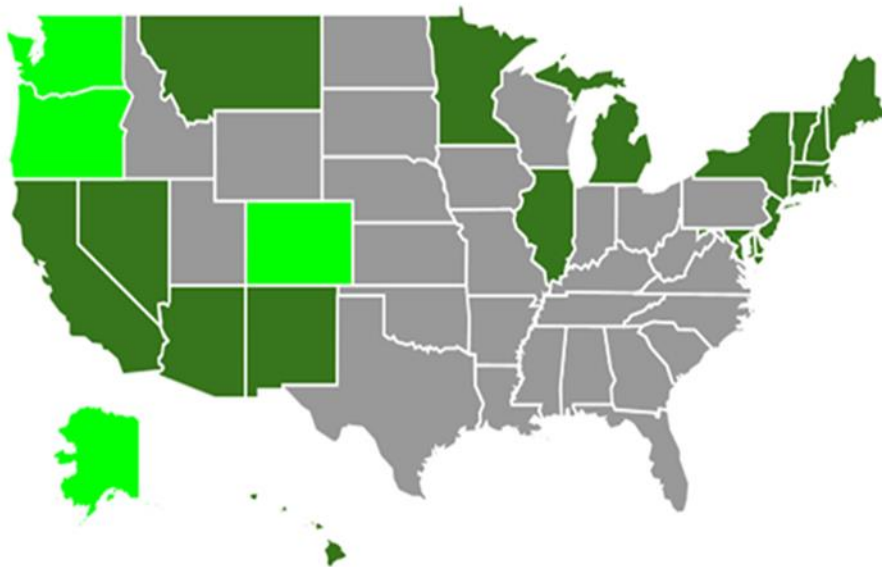
Recent advancements in isolating cannabis-based drugs for FDA-authorized testing of what could become medicines is encouraging, and more rigorous research is required to safely and effectively help those in need without putting others at greater risk.

Marijuana Reality Check

- Medical Efficacy
- Motives
- Unintended Consequences
- Leakage
- Health Effects
- Public Safety Impacts
- Policy Implications

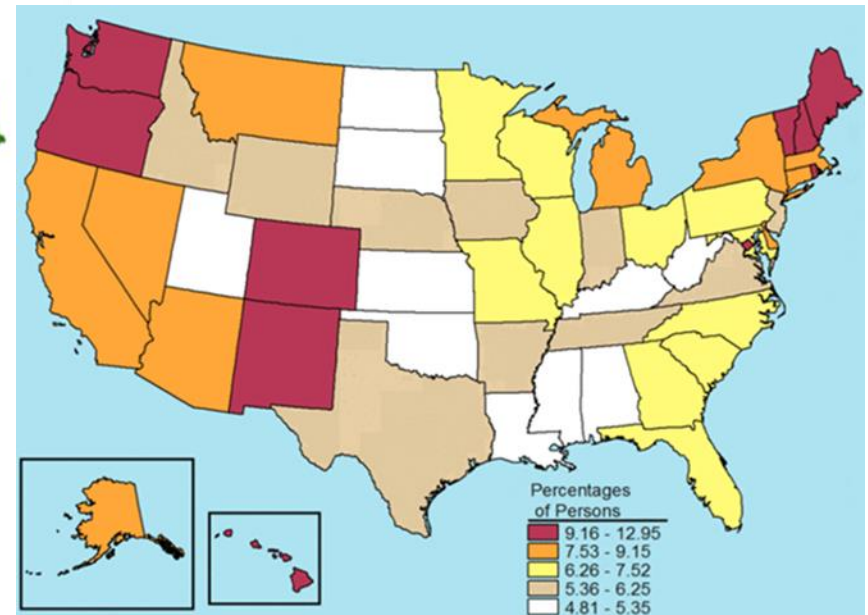
Marijuana Laws & Use by Teens by State

States with Relaxed Marijuana Laws
(2014 Governing)



(Dark green states: "Medical" marijuana.
Light green states: "Recreational" marijuana too.)

Past Month Use by 12-17 Year Olds
(2012-2013 NSDUH)



Other Legal Developments

- Buyer's remorse? Over 200 communities in California, 100 in Colorado & others elsewhere have enacted local bans on "medical" or "recreational" marijuana sales, & numbers are growing.
- Federal law enforcement has cracked down in California, closing up to 600 "medical marijuana" dispensaries for violating federal controlled substance laws or state laws re: nonprofits, caregivers, medical use, etc. Similar raids have been conducted in Colorado.
- Lawsuits & court challenges are pending.

Scientific Positions on Marijuana

- The FDA has not approved the use of marijuana as medicine, saying “there is currently sound evidence that smoked marijuana is harmful.”
- The Institute of Medicine has declared smoking marijuana is unsafe, & “marijuana is not modern medicine.”
- The National Institute on Drug Abuse reports “marijuana is addictive,” with nearly 4.5 million Americans meeting the clinical criteria for marijuana abuse or dependence.

Health Group Positions on Marijuana

- Major public health organizations (American Cancer Society, American Glaucoma Foundation, American Medical Association, American Psychiatric Association, National Pain Foundation, National Multiple Sclerosis Society, National Association of School Nurses, et al.) do not support smoked marijuana.



- The American Academy of Pediatrics “opposes marijuana use by children & adolescents...the use of ‘medical’ marijuana outside the regulatory process of the FDA...&...legalization of marijuana.”

Marijuana Health Effects

- Marijuana can: cause or worsen respiratory symptoms; impair short-term memory & motor coordination; slow reaction time; distort perceptions; raise heart rate; disrupt problem solving & learning ability; alter mood, judgment & decision-making; & in some people cause severe anxiety or psychosis.

2012 National Institute on Drug Abuse, NIH, Drug Facts

- More U.S. citizens met the American Psychiatric Association's diagnostic criteria for marijuana abuse or dependence than for pain relievers, cocaine, tranquilizers, hallucinogens & heroin combined.

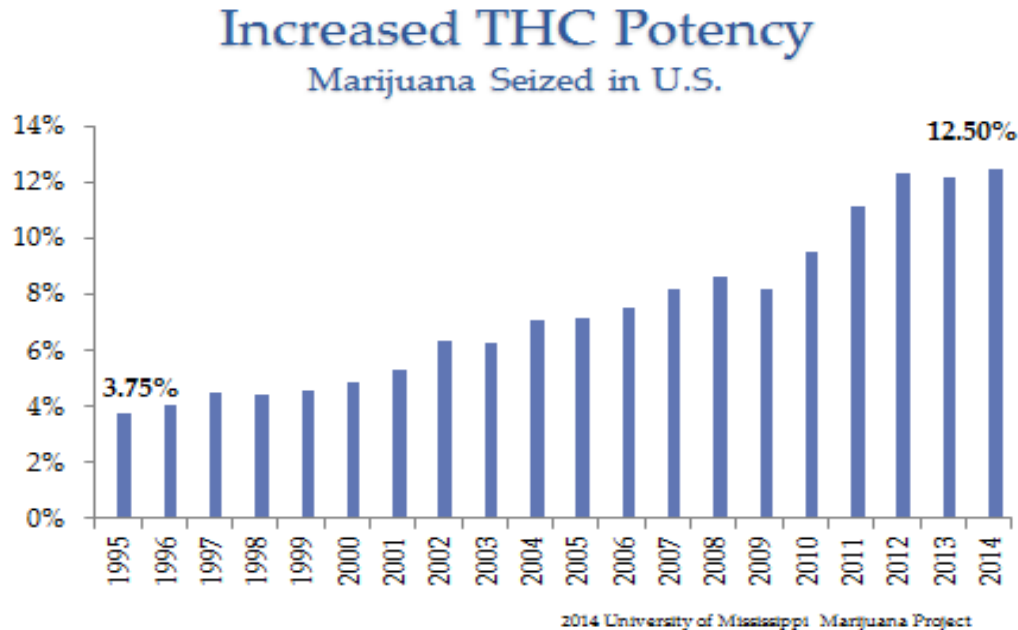
2011 U.S. Substance Abuse & Mental Health Services Administration, National Survey on Drug Use & Health

Marijuana Health Effects

- Marijuana is addictive. About 9% of users become addicted. That number increases to 1 in 6 among users who start in adolescence, & to 25-50% among those who use marijuana daily.
2014 National Institute on Drug Abuse
- Regular daily users of high-potency marijuana (~16% THC), similar to forms increasingly found in the U.S., are 5 times more likely than non-users to have a psychotic disorder. Weekend users are 3 times as likely to suffer a psychotic episode. 2015 The Lancet Psychiatry, Kings College London
- Preliminary research finds breathing 2nd-hand marijuana smoke could damage your heart & blood vessels as much as 2nd-hand cigarette smoke.
2014 American Heart Association's Scientific Sessions

Marijuana & Health

- Average marijuana THC potency rose to 12.5%, up from less than 4% in 1995, a 3-fold increase. THC potency was less than 1% in 1972. September 24, 2014 University of Mississippi Marijuana Project, Revised

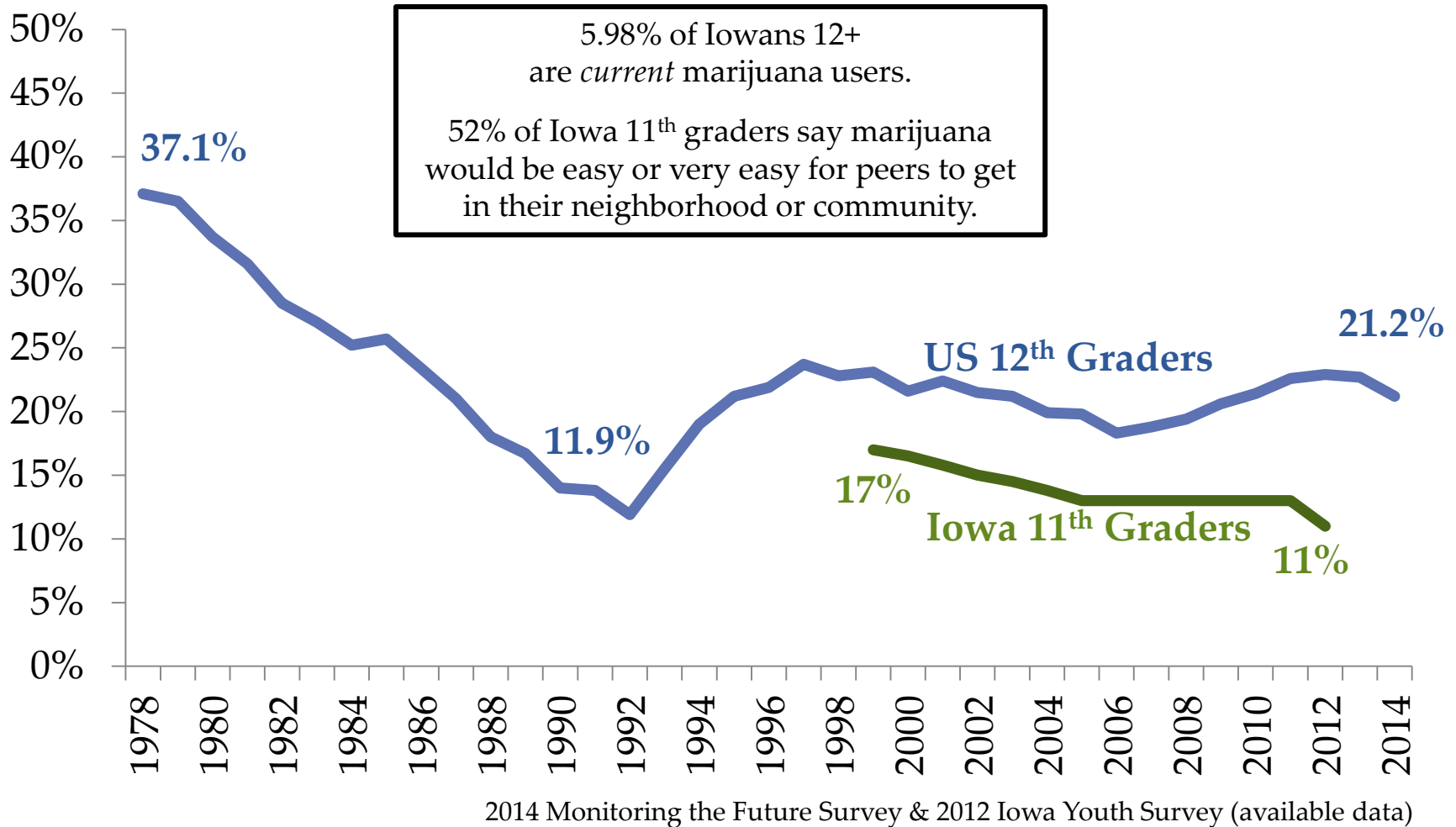


- Some new marijuana concentrates (e.g., hash oils, waxes & edibles) reportedly contain THC levels in excess of 80%.

2014 U.S. Department of Justice, Drug Enforcement Administration, National Drug Threat Assessment Summary

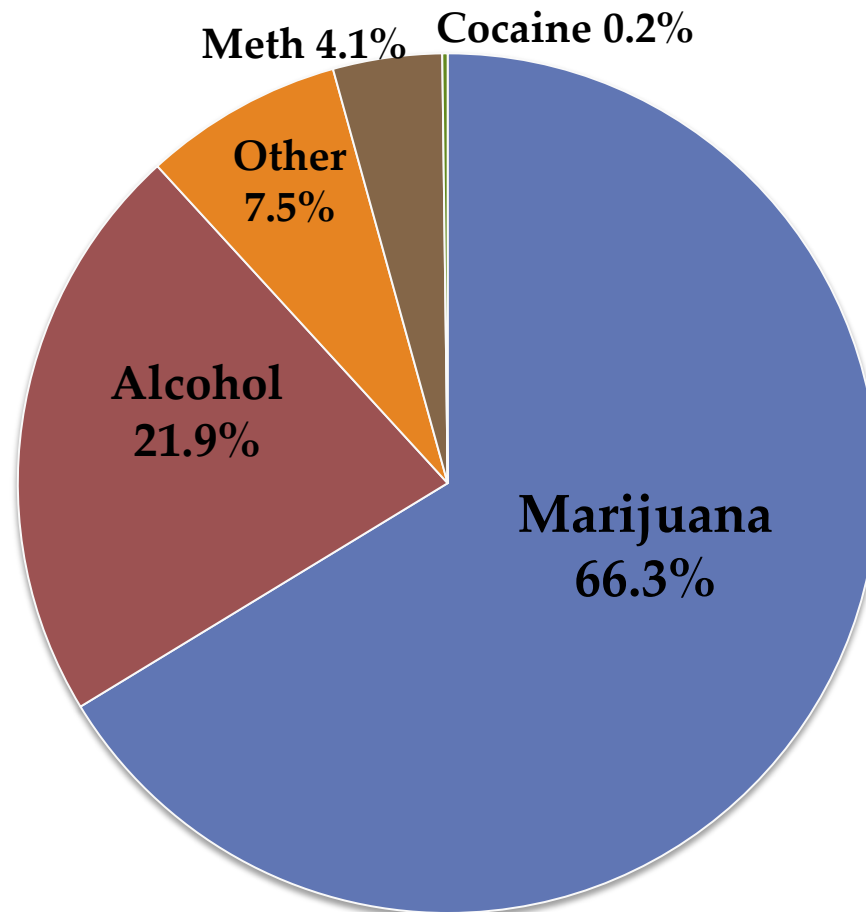
Current Youth Marijuana Use

Past 30 Days: U.S. vs. Iowa



Drugs of Choice: Iowa Youth

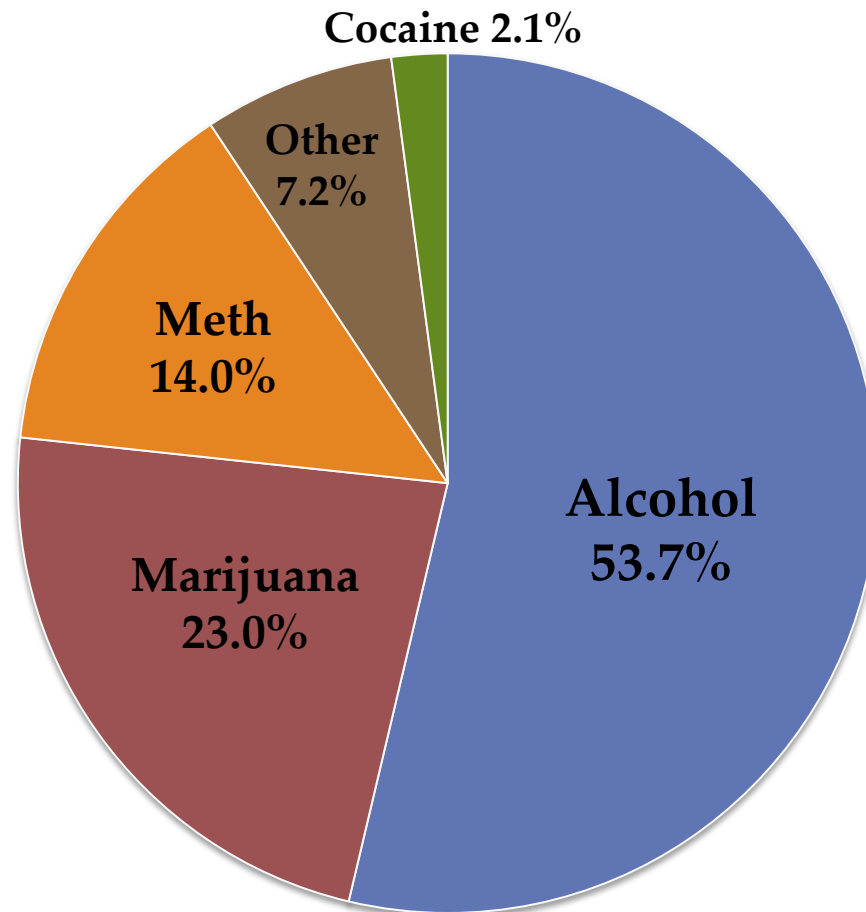
Primary Substance among 5,026 Juveniles in Treatment



IDPH Treatment Admissions, 2014

Drugs of Choice: Iowa Adults

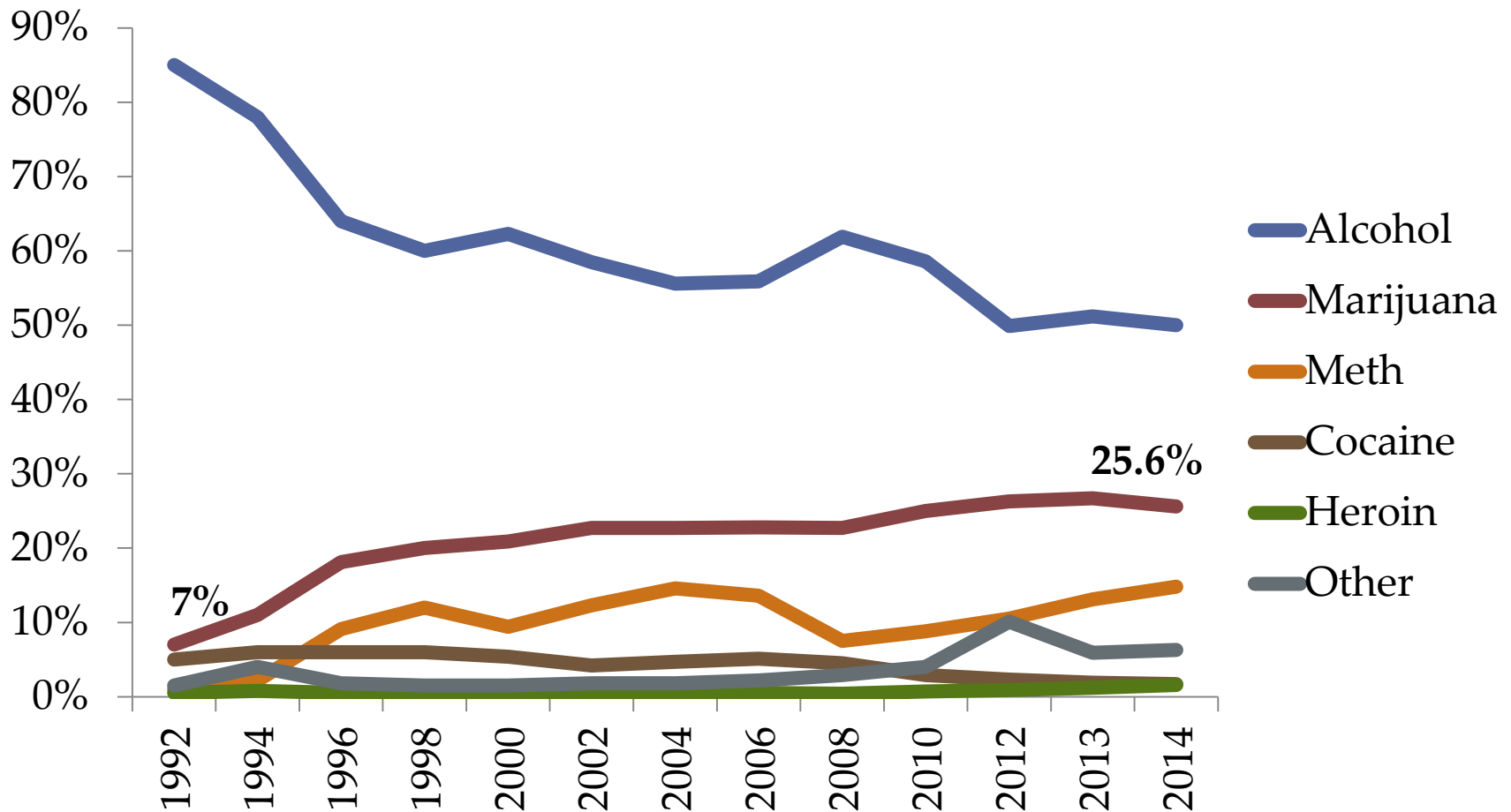
Primary Substance by 46,891 Adults Entering Treatment



IDPH Treatment Admissions, 2013

Drugs of Choice: All Iowans

Primary Substance of Choice by Iowans in Treatment

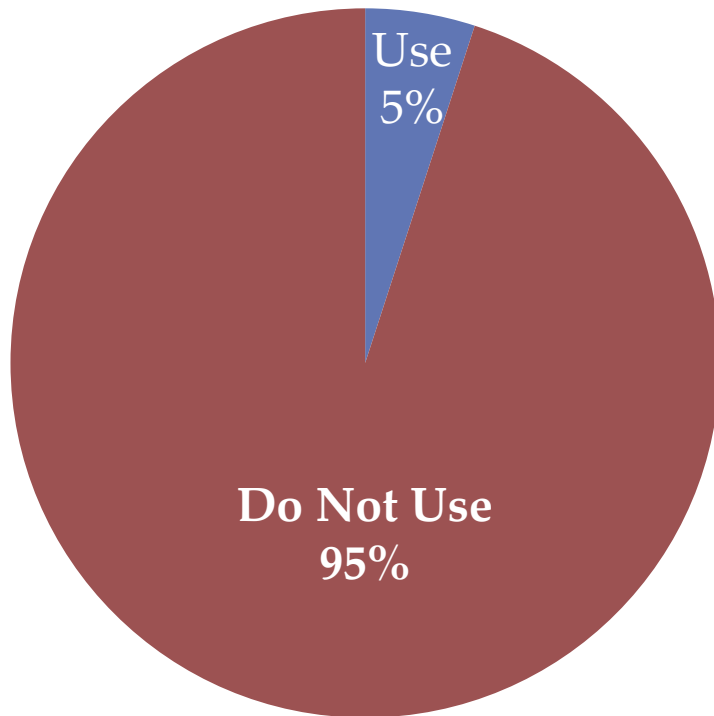


IDPH Treatment Admissions, 2014

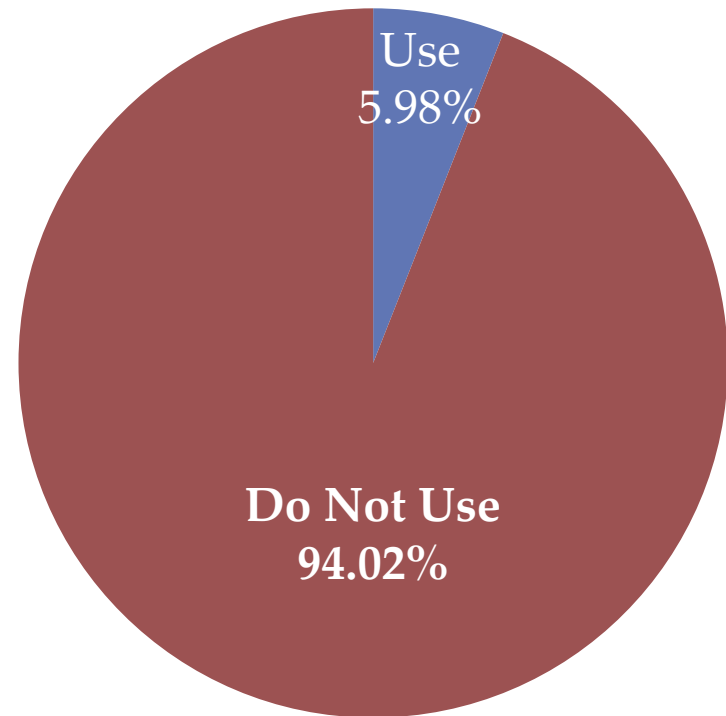
Iowans' *Current* Marijuana Use

Most Iowans are not *current* marijuana users (past 30 days).

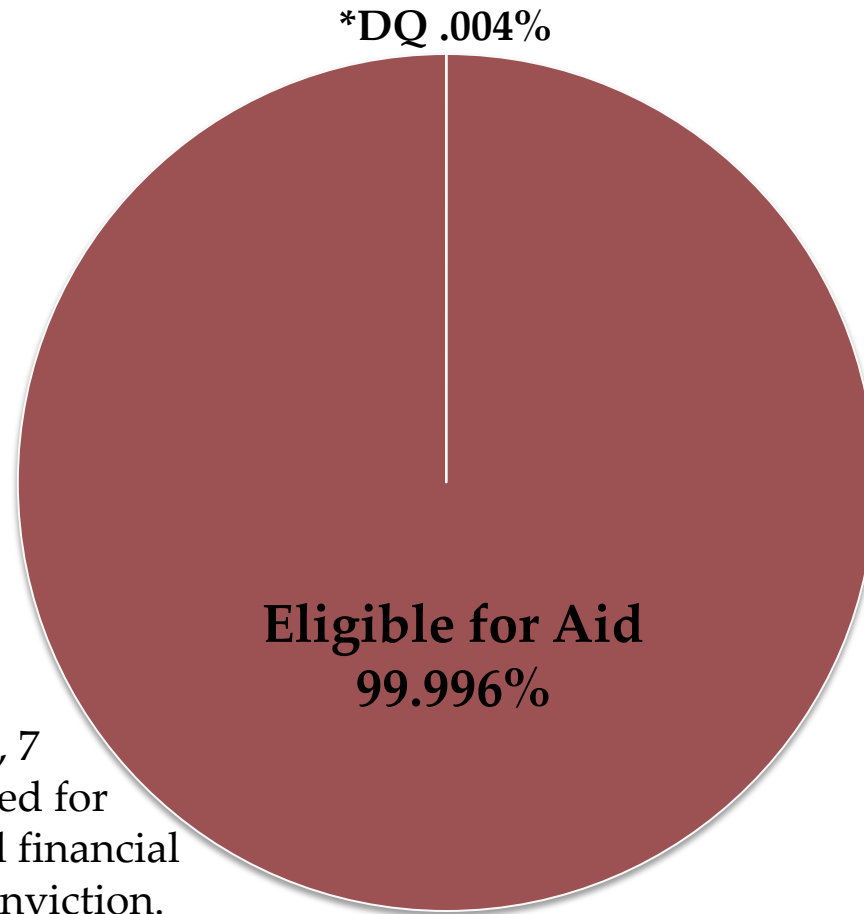
**Iowa 6th, 8th & 11th graders
currently using marijuana.**



**Iowans 12 & older
currently using marijuana.**



Iowa College Students Risking Aid Due to Drug Conviction

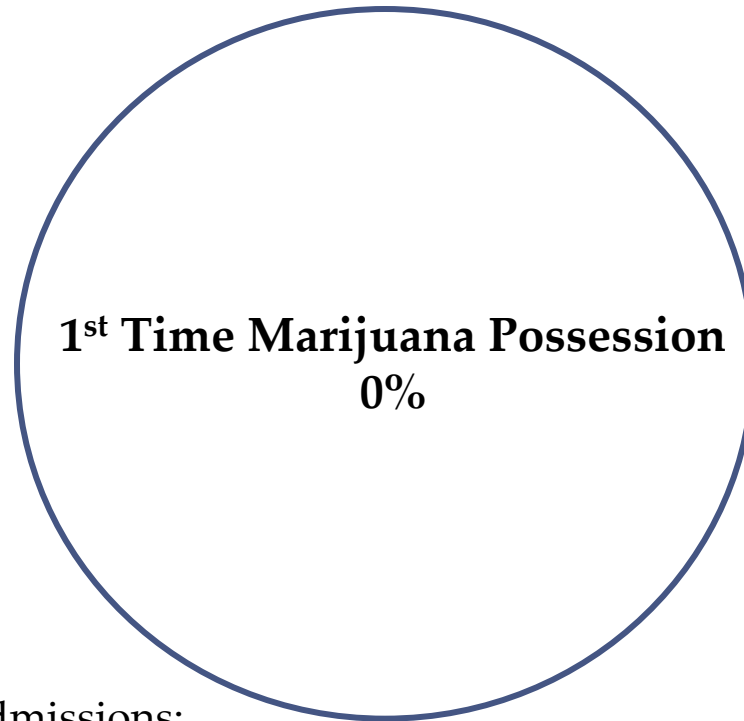


*In 2013-2014, 7 of 184,872 qualified for suspension of federal financial aid due to a drug conviction.

ICSAC, 2014

2014 Iowa Prison Admissions

1st Time Marijuana Possession as Most Serious Offense



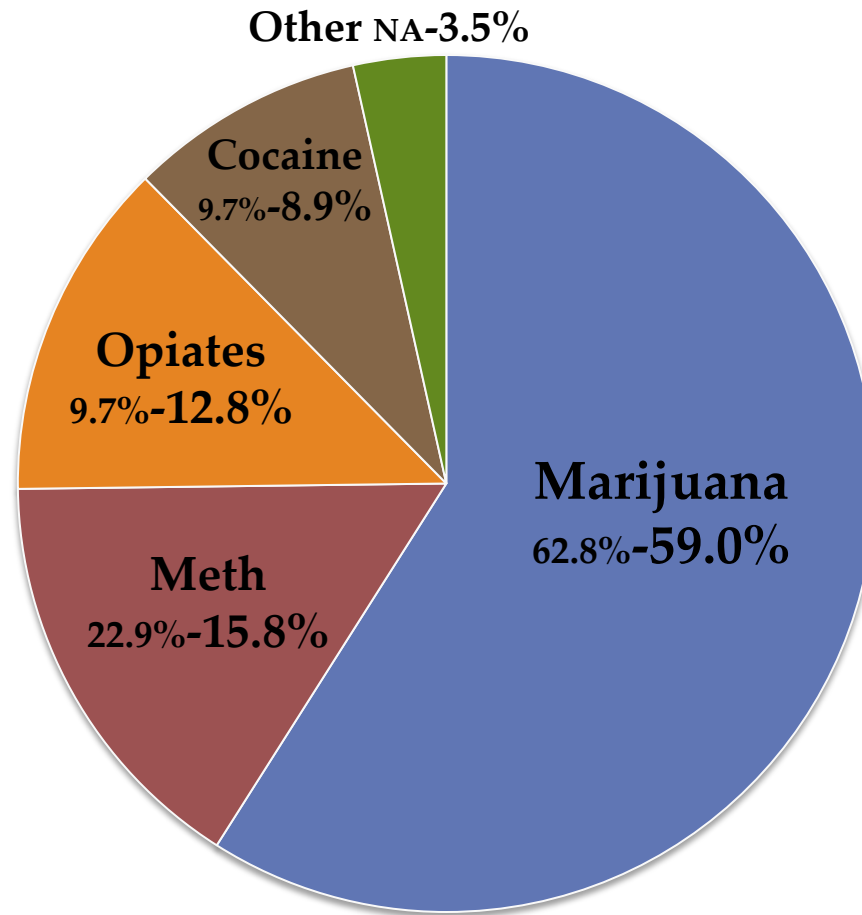
Of 3,697 total prison admissions:

- 160 (4.3%) were for marijuana trafficking,
- 13 (0.35%) were for 3rd or subsequent marijuana possession,
- 1 (0.03%) was for 2nd or subsequent marijuana possession, and
- None (0%) was for 1st-time marijuana possession.

IDOC, 2014

Iowa's Workplace

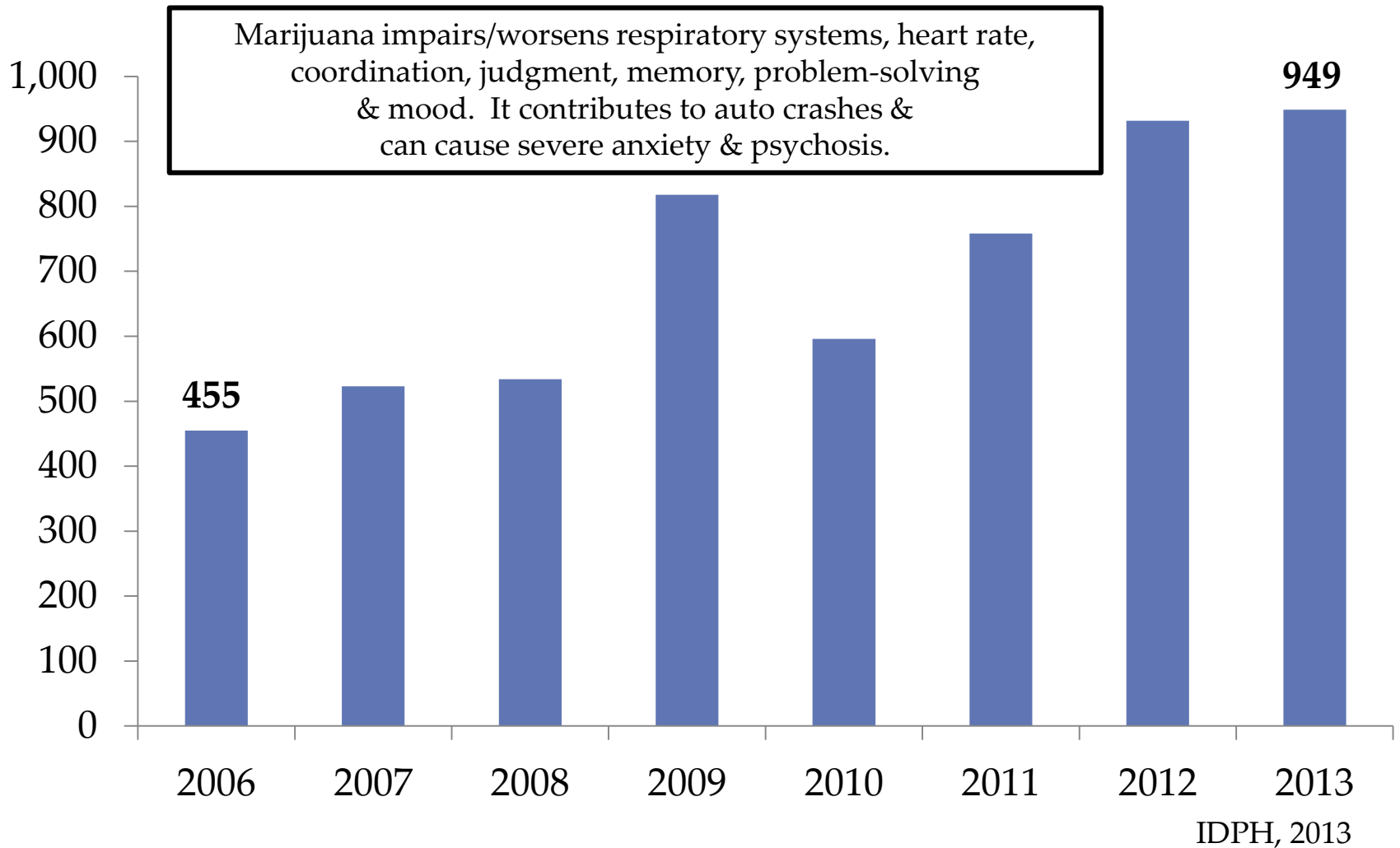
Positive Drug Tests Reported 2002-2011



IDPH, 2014

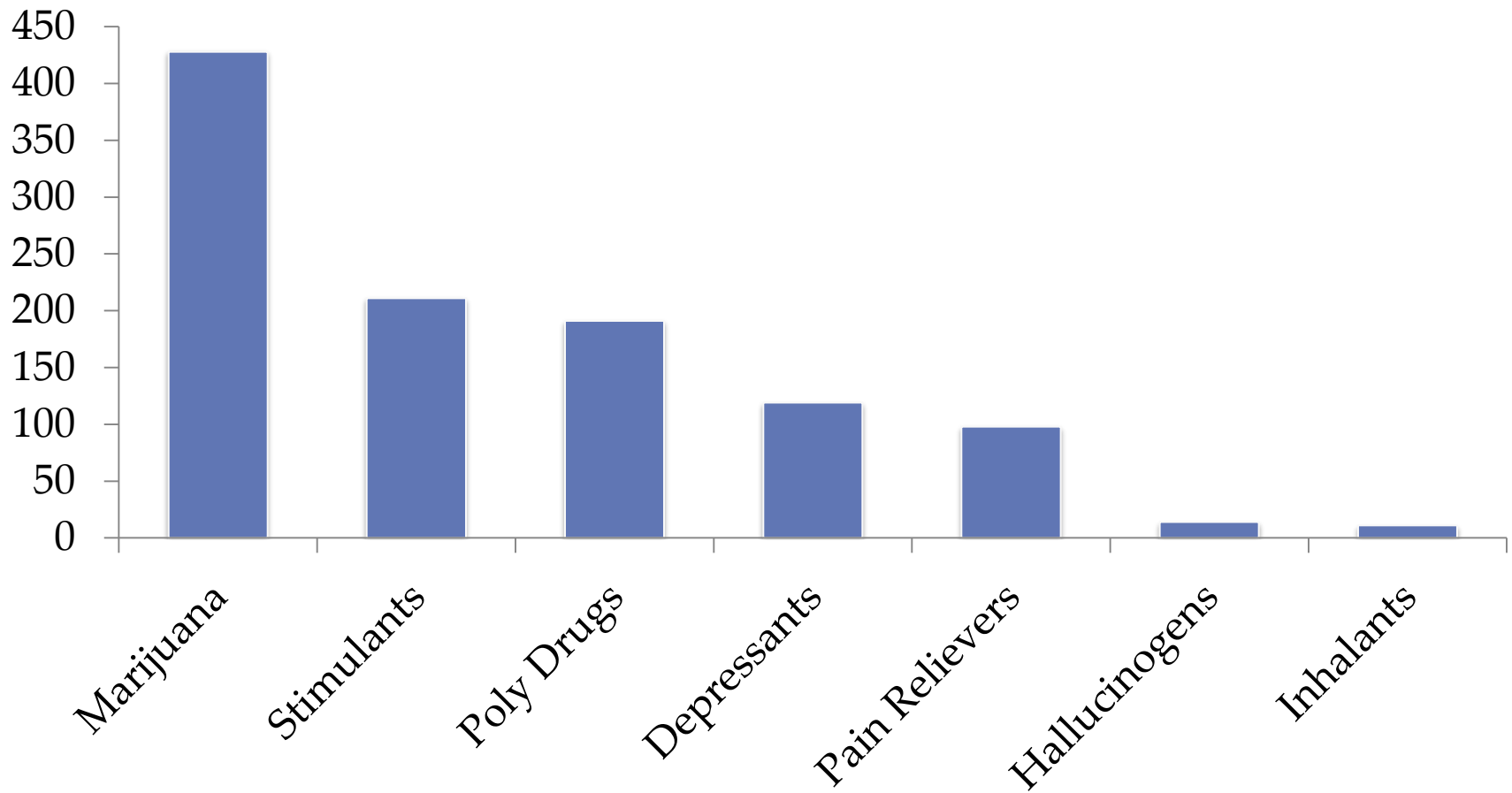
Iowa Marijuana ER Visits

Marijuana Use as Causal or Contributing Factor



Iowa Drug-Impaired Driving

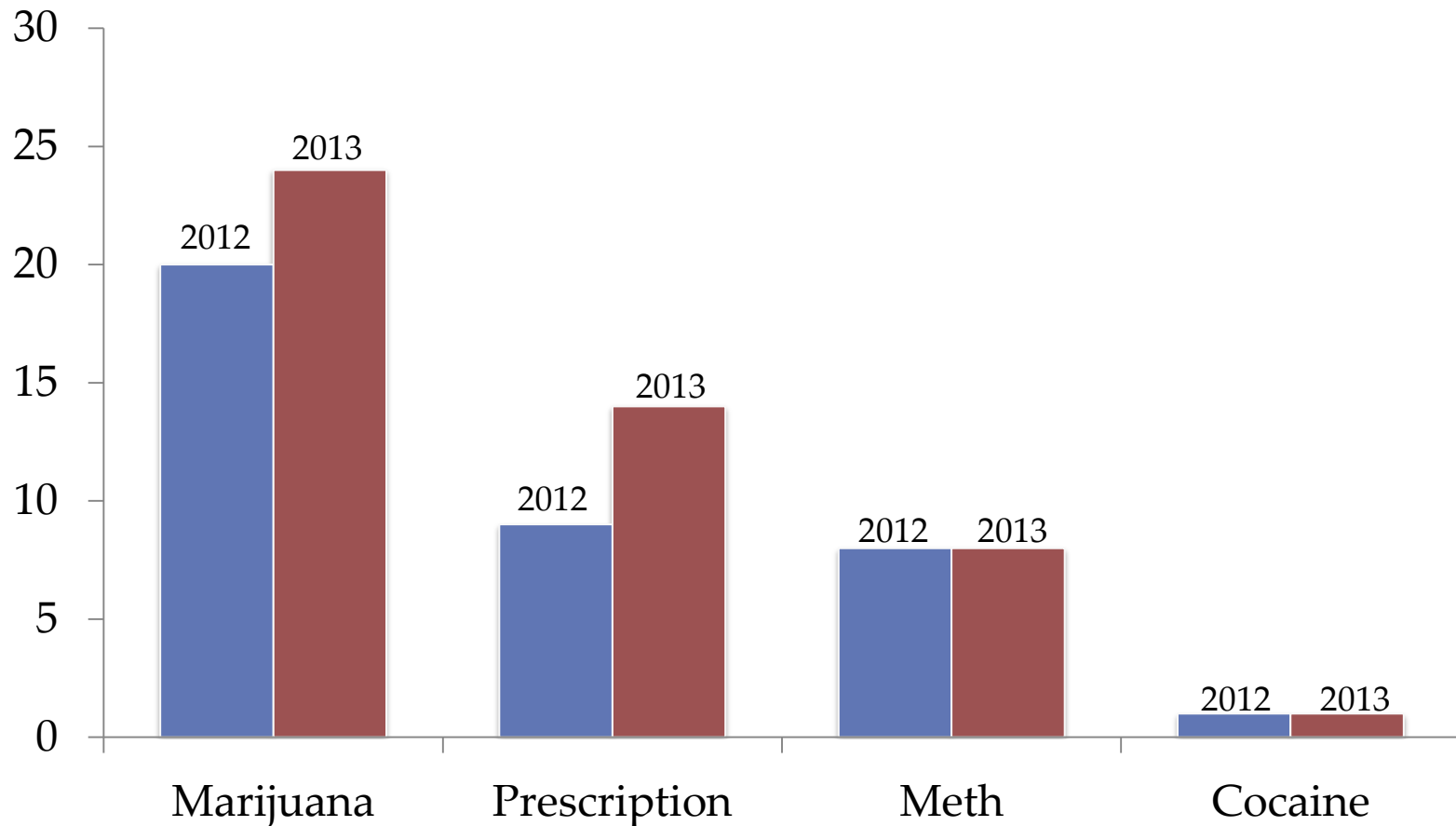
2014 Non-Alcohol Evaluations by Drug Recognition Experts



IDPS, 2014

Iowa Drug-Related Traffic Fatalities

Types of Drugs Detected in Persons Killed in Crashes



Poly-drug use & drugs mixed with alcohol were detected in some cases.
Alcohol alone was detected in 94 other crash victims.

IDPS & IDOT, 2014

“Medical” Marijuana: Case Studies Users

- A majority of card holders in “medical” marijuana states with data cite pain as their primary illness (vs. cancer, glaucoma, HIV/AIDS & other debilitating conditions.):
 - 65% in Oregon 2012 Oregon Health Authority
 - 71% in Arizona 2012 Arizona Department of Health Services
 - 94% in Colorado 2014 Colorado Department of Health & Environment
- The average age of “medical” marijuana card holders tends to be under 45 years:
 - 41 in Colorado 2012 Colorado Department of Health & Environment
 - 40 in Arizona 2012 Arizona Department of Health Services
 - 32 in California 2011 Journal of Drug Policy Analysis
- 75-80% of “medical” marijuana users seen as patients say marijuana did not ease their pain. 2014 Colorado Springs Dr. Ken Finn, MD

“Medical” Marijuana: Case Studies Leakage

- 85% of all “medical” marijuana users in Colorado were registered by 50 physicians, or less than 3% of licensed doctors. 1 physician registered 10% of all users.
2011 Nussbaum, Boyer & Kondrad-MDs/Colorado Department of Public Health & Environment
- In Oregon, 9 physicians accounted for half of all “medical” marijuana users. One doctor helped 4,180 users in a year, or more than 11/day. 2012 The Oregonian
- 74% of Denver teens in substance abuse treatment say they used someone else’s “medical” marijuana.
2012 Salomonsen-Sautel, et al., Journal of the American Academy of Child Adolescent Psychiatry
- 34% of 12th grade marijuana users in “medical” marijuana states say one of their sources is another person’s “medical” marijuana. 2013 Monitoring the Future Survey/University of Michigan

“Medical” Marijuana: Case Studies

Drug Endangered Children

- States that decriminalized marijuana saw a 30+% increase in the call rate to poison centers for children requiring medical intervention between 2005 & 2011, while call rates did not change in other states. 2014 Annals of Emergency Medicine
- The average number of Colorado marijuana-related exposures for young children 0-5 was 4.75/year from 2006-2009, but rose 268% to 17.5/year from 2010-2013.
2014 Rocky Mountain Poison & Drug Center
- There's been a spike in the number of Colorado children treated for accidentally consuming marijuana-laced foods & beverages. May 2013 Journal of the American Medical Association Pediatrics

“Medical” Marijuana: Case Studies

Impairment & Injury

- While total traffic fatalities in Colorado decreased 14.8% from 2007-2012, traffic fatalities involving operators testing positive for marijuana during the same period increased 100%.

2011 National Highway Transportation Safety Administration & 2012 Rocky Mountain HIDTA

- A six-state study showed the prevalence of marijuana detected in fatally injured drivers increased from 16.6% in 1999 to 28.3% in 2010. 2014 American Journal of Epidemiology, Columbia University
- Colorado marijuana-related hospitalizations increased 82% from 2008 to 2013. 2014 Colorado Hospital Association

“Medical” Marijuana: Case Studies

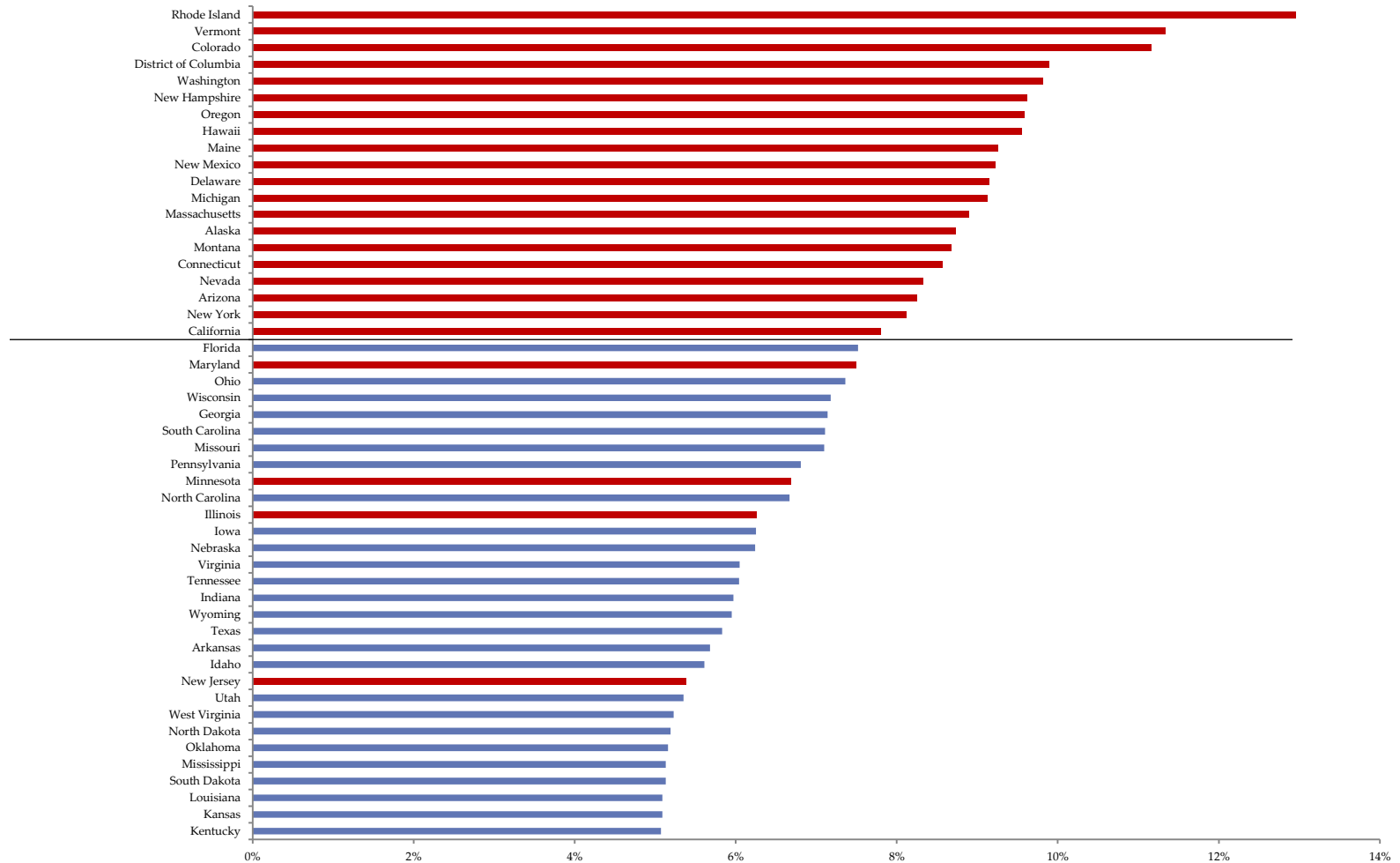
Use/Abuse

- 80% of “medical” marijuana states reported increased usage among youths age 12-17 vs. 5 years earlier.
2012 Cerda, M., Drug & Alcohol Dependence
- Residents of “medical” marijuana states had abuse / dependence rates almost twice that of other states.
2011 Wall, M., Annals of Epidemiology
- Colorado & Washington State had the 2nd & 3rd highest marijuana use rates among persons 12 & older (12.7% & 12.28% respectively vs. 7.4% for the U.S. & 5.98% in Iowa). This happened under “medical” marijuana laws, & a year before full-scale legalization. 2012-2013 National Survey on Drug Use & Health
- The top 20 states (& DC) for current marijuana use among teens all have approved “medical” marijuana.

2012-2013 National Survey on Drug Use & Health

Current Youth Marijuana Use Rates

Teens in “Medical” vs. Non-“Medical” Marijuana States



2012-2013 National Survey on Drug Use & Health

“Medical” Marijuana: Case Studies

Youth Learning Potential

- The top 9 states for marijuana use in high school were all “medical” marijuana states, with an average use rate of 1/4 students (vs. a national rate of 1/5 & an 1/9 Iowa rate).

2014 Centers for Disease Control, 2013 Colorado Youth Risk Behavior Survey & 2012 Iowa Youth Survey

- Drug-related student suspensions & expulsions increased 32% in Colorado schools from 2008/2009-2012/2013.

2014 Colorado Department of Education

- School resource officers, counselors, nurses, staff & officials with Colorado schools report an increase in marijuana-related incidents in middle & high schools.

November 2013 Denver Post

“Medical” Marijuana: Case Studies

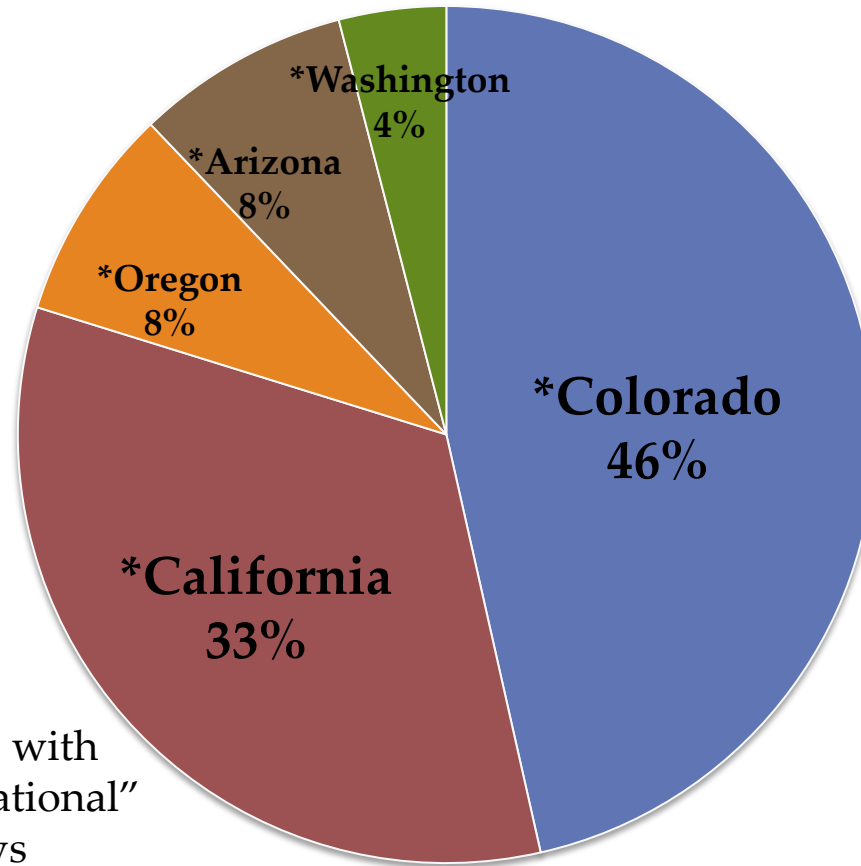
Diversion

- From 2006-2008 Colorado reported 1,000-4,800 “medical” marijuana card holders and no known dispensaries. From 2009 to now, more than 108,000 card holders buy from 532 licensed dispensaries. 2014 Rocky Mountain HIDTA
- Denver has 204 dispensaries, roughly 3 times the number of Starbucks & McDonalds combined. 2012 CBS 60 Minutes
- Highway interdiction seizures of Colorado marijuana destined for 40 other states, including Iowa, increased 397% from 2008-2013. 2014 El Paso Intelligence Center
- Iowa’s Crime Lab reports 26 cases of marijuana oils/waxes & edibles in December 2014-January 2015, & estimates 10% of all recent marijuana submissions are these newer types.

January 2015 Iowa Department of Public Safety, Division of Criminal Investigation

Source of Marijuana Seized in Iowa

2014 Iowa State Patrol Significant Highway Interdictions



*All 24 from States with
"Medical" or "Recreational"
Marijuana Laws

IDPS, 2014

“Recreational” Marijuana: Case Studies

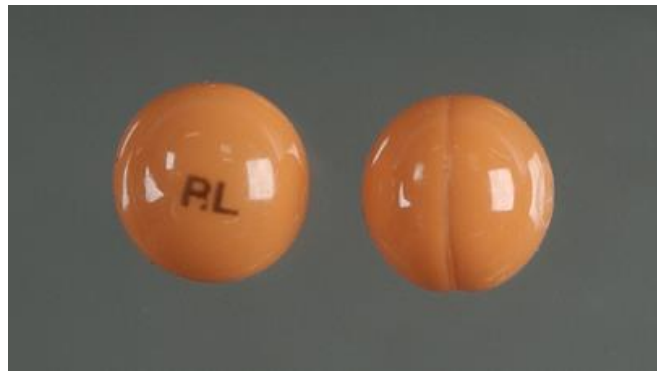
- “Global cannabis use seemed to have decreased. However, in the U.S. the lower perceived risk of cannabis use has led to an increase in its use.” June 26, 2014, UN Office on Drugs & Crime
- “2 deaths connected with edible marijuana products have Colorado lawmakers scrambling to toughen regulations & experts warning of bizarre behavior as consumers eat powerful pot-infused foods.” May 8, 2014 USA Today
- Legalization led to a 356% 1-year rise (356-1,650) in Pueblo County’s homeless shelter population as of March 2014.
2014 Pueblo County Colorado Sheriff Kirk Taylor
- 3 elementary girls were cited for drug possession on school grounds in Colorado Springs. 1 girl said she brought marijuana from home because “it’s legal & cool.” 2014 KRDO-TV

“Recreational” Marijuana: Case Studies

- Highway interdiction seizures of Colorado marijuana destined for 40 other states, including Iowa, increased 397% from 2008-2013. 2014 El Paso Intelligence Center
- “Visitors account for 44% of ‘recreational’ marijuana sales in the Denver area. In the mountains & other vacation spots, visitors to Colorado account for 90% of ‘recreational’ dispensary traffic. Heavy users consume marijuana much more often, & more intensely, than other consumers.”
July 9, 2014, Colorado Department of Revenue Market Study
- “7 months after Colorado legalized ‘recreational’ pot, the state has an unexpected problem. It needs to grow more.”
August 12, 2014, KUSA-TV

“Medical” Marijuana: Alternatives

- Research shows a few orally-administered synthetic medicines containing the cannabis plant’s principal psychoactive compound tetrahydrocannabinol (THC) do have therapeutic potential to relieve pain, control nausea, stimulate appetite & decrease ocular pressure. Smoking or ingesting crude marijuana is not required.



- Dronabinol (Marinol) & Nabilone (Cesamet) are FDA-approved & legally available as prescription pills.

“Medical” Marijuana: Alternatives

- The FDA is considering a mouth spray (Sativex) with 2 cannabinoids extracted from the cannabis plant.
- An oral liquid (Epidiolex) containing non-psychoactive Cannabidiol (CBD), extracted from the cannabis plant, is an FDA orphan drug under study to treat seizures, & will be available for patient testing, including at University of Iowa Hospitals & Clinics.
- Iowa & 10 other states now permit limited use of CBD solutions by patients with severe medical needs.



“Medical” Marijuana: Alternatives

- Many other FDA-approved medicines, currently available in dose-specific forms that do not involve marijuana, are prescribed & dispensed regularly by health care professionals as safe & effective treatments.
- Research continues on cannabinoids, & other substances, to determine if they may be formulated similar to other medicines for medical use (e.g., morphine from opium, aspirin from tree bark, penicillin from moldy bread, etc.).

Questions?

Share the News. Stay Safe!

Dale Woolery

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Iowa Office of Drug Control Policy

www.iowa.gov/odcp